Trullas, R. and Skolnick, P. (1990) Functional antagonists at the NMDA receptor complex exhibit antidepressant actions. *Eur. J. Pharmacol.* 185, 1–10.

Tucker, et al. (1951) Apparent ionization exponents of 4-hydroxyquinoline, 4-methoxyquinoline and N-methyl-4-quinoline: evaluation of lactam-lactam tautomerism. *J. Am Chem. Soc.* 73, 1923–1928.

Vida, et al. (1977) *Anticonvulsants*, pp. 176–182. Academic Press, New York, NY.

Watkins, et al. (1990) Structure-activity relationships in the development of excitatory amino acid receptor agonists and competitive antagonists. *Trends Pharmacol Sci.* 11, 25–33.

White, et al. (1989) Glycine binding to rat cortex and spinal cord: binding characteristics and pharmacology reveal distinct populations of sites. *J. Neurochem.* 53, 503–512.

Wong, et al. (1986) The anticonvulsant MK-801 is a potent N-methyl-D-aspartate antagonist. *Proc. Natl. Acad. Sci. USA* 83, 7104–7108.

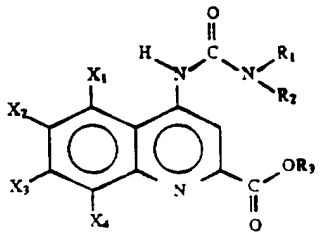
Wright, (1984) A simple one-pot conversion of alkyl 4-oxo-1,4-dihydroquinoline-2-carboxylates to 4-aminoquinoline-2-carboxylates using reactive isocyanates. *Synthesis*, 1058–1061.

Young, et al. (1988) *Science* 241, 981–983.

It is to be understood that the form of the invention described is a preferred embodiment thereof and that various changes and modifications may be made therein without departing from the spirit of the invention or scope as defined in the following claims.

Having set forth the nature of the invention, what is claimed is:

1. A compound of the formula:



wherein:

R_1, is selected from the group consisting of hydrogen, ethyl, methyl, n-butyl, or phenyl;

R_2 is selected from the group consisting of hydrogen, ethyl, methyl, n-butyl, phenyl, or 3-methoxyphenyl;

R_3 is selected from the group consisting of ethyl, methyl, or hydrogen;

X_1 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms;

X_2 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any

branched or straight-chained acyl group containing from 1 to 4 carbon atoms;

X_3 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; and

X_4 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms.

2. A compound according to claim 1, wherein:

R_1 is ethyl;

R_2 is ethyl; and

R_3 is methyl.

3. A compound according to claim 1, wherein:

R_1 is ethyl;

R_2 is ethyl; and

R_3 is ethyl.

4. A compound according to claim 1, wherein:

R_1 is ethyl;

R_2 is ethyl; and

R_3 is hydrogen.

5. A compound according to claim 1, wherein:

R_1 is methyl;

R_2 is methyl; and

R_3 is ethyl.

6. A compound according to claim 1, wherein:

R_1 is methyl;

R_2 is methyl; and

R_3 is hydrogen.

7. A compound according to claim 1, wherein:

R_1 is n-butyl;

R_2 is n-butyl; and

R_3 is ethyl.

8. A compound according to claim 1, wherein:

R_1 is n-butyl;

R_2 is n-butyl; and

R_3 is hydrogen.

9. A compound according to claim 1, wherein:

R_1 is phenyl;

R_2 is phenyl; and

R_3 is ethyl.

10. A compound according to claim 1, wherein:

R_1 is phenyl;

R_2 is phenyl; and

R_3 is hydrogen.

11. A compound according to claim 1, wherein:

R_1 is phenyl;

R_2 is phenyl; and

R_3 is methyl.

12. A compound according to claim 1, wherein:

R_1 is phenyl:

R_2 is 3-methoxyphenyl; and

R_3 is ethyl.

13. A compound according to claim 1, wherein:

R_1 is phenyl; R_2 is methoxyphenyl; and R_3 is hydrogen.

14. A compound according to claim 1, wherein:

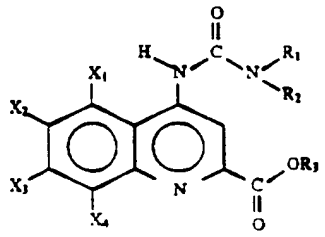
X_1 is chlorine:

X_2 is hydrogen:

X_3 is chlorine; and

X4 is hydrogen.

15. A compound of the formula:



wherein:

R_1 is selected from the group consisting of hydrogen or any branched or straight-chained alkyl groups containing from 1 to 6 carbon atoms;

R_2 is selected from the group consisting of hydrogen or any branched or straight-chained alkyl groups containing from 1 to 6 carbon atoms;

R_3 is selected from the group consisting of ethyl, methyl, or hydrogen;

X_1 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group contain-

ing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms;

X_2 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms;

X_3 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms; and

X_4 is selected from the group consisting of hydrogen, fluoro, chloro, bromo, iodo, nitro, cyano, fluoromethyl, any branched or straight-chained alkyl group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy group containing from 1 to 4 carbon atoms, any branched or straight-chained alkoxy carbonyl group containing from 1 to 4 carbon atoms, or any branched or straight-chained acyl group containing from 1 to 4 carbon atoms.

* * * * *